Workgroup Updates

OHDSI Community Call
Oct. 10, 2023 • 11 am ET
## Upcoming Community Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 10</td>
<td>Workgroup Reports</td>
</tr>
<tr>
<td>Oct. 17</td>
<td>Symposium Week! Final Logistics + Mad Minutes</td>
</tr>
<tr>
<td>Oct. 24</td>
<td>Welcome to OHDSI</td>
</tr>
<tr>
<td>Oct. 31</td>
<td>TBA</td>
</tr>
<tr>
<td>Nov. 7</td>
<td>Meet The Titans</td>
</tr>
<tr>
<td>Nov. 14</td>
<td>Collaborator Showcase Honorees</td>
</tr>
</tbody>
</table>
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
Congratulations to the team of Ji-Woo Kim, Chungsoo Kim, Kyoung-Hoon Kim, Yujin Lee, Dong Han Yu, Jeongwon Yun, Hyeran Baek, Rae Woong Park and Seng Chan You on the publication of Scalable Infrastructure Supporting Reproducible Nationwide Healthcare Data Analysis toward FAIR Stewardship in Scientific Data.

Scalable Infrastructure Supporting Reproducible Nationwide Healthcare Data Analysis toward FAIR Stewardship

Ji-Woo Kim, Chungsoo Kim, Kyoung-Hoon Kim, Yujin Lee, Dong Han Yu, Jeongwon Yun, Hyeran Baek, Rae Woong Park, Seng Chan You

Transparent and FAIR disclosure of meta-information about healthcare data and infrastructure is essential but has not been well publicized. In this paper, we provide a transparent disclosure of the process of standardizing a common data model and developing a national data infrastructure using national claims data. We established an Observational Medical Outcome Partnership (OMOP) common data model database for national claims data of the Health Insurance Review and Assessment Service of South Korea. To introduce a data openness policy, we built a distributed data analysis environment and released metadata based on the FAIR principle. A total of 16,095,738,343 claims and 56,579,728 patients' data were converted as OMOP common data model. We also built an analytics environment for distributed research and made the metadata publicly available. Disclosure of this infrastructure to researchers will help to eliminate information inequality and contribute to the generation of high-quality medical evidence.

Introduction
Numerous studies using routinely collected large healthcare data have provided irrefutable evidence representing routine clinical practice.1-5 Administrative data representing the nationwide population have been used for secondary analysis in healthcare research for various purposes, including consecutive monitoring of disease and medical expenditure, comparative effectiveness of medical interventions, and even machine learning.6-9 The Korean National Health Insurance system is a single public insurance system for all citizens, and all medical institutions are subject to mandatory designation systems. The Health Insurance Review and Assessment Service (HIRA) establishes health insurance reimbursement criteria and reviews all medical claims for reimbursement. Therefore, the HIRA has accumulated a vast amount of claims data at the national level, and it can be used as a secondary data source for high-quality real-world evidence. For example, statistics from the HIRA database are used in OECD statistics as representative statistics for Korea. Administrative data, despite being a commonly used source for research, has drawn significant criticism predominantly due to concerns over the validity of its coded information. For instance, coding practices like “splicing” can lead to inaccuracies: this is where providers code for a more severe illness than the patient actually has to receive higher reimbursement.10 While the debate on coded information’s validity continues, less attention is being directed towards the stewardship of this extensive healthcare data. Chief among these issues is non-compliance: 1. Non-scalability and non-interoperability; 2. Ignored reproducibility; and 3. Protection of
OHDSI Shoutouts!

OHDSI Shoutouts!

Congrats to our 2023 Titan Award Nominees!

Alexander Davydov • Aniek Markus • Anna Ostropolets • Anthony Sena • Asieh Golozar • Asiyah Lin • Atif Adam • Azza Shoaibi • Can Yin • Carlos Diaz • Center for Surgical Science team • Christian Reich • Christie Quarles • Chungsoo Kim • Cindy Cai • Clair Blacketer • Clark Evans • Craig Sachson • Cynthia Sung • Dana Zakrzewski • Danielle Boyce • Davera Gabriel • Debo Wei • Eleanor Davies • Elisse Katzman • Erica Voss • Evan Minty • Frank DeFalco • Geert Byttebier • Georgina Kennedy • Gowtham Rao • Grahame Grieve • Gregory Klebanov • Gyeol Song • Henrik John • Hugo Vernooij • IQVIA OMOP Productized Analytics • Ismail Gogenur • Jack Brewster • James Brash • James Gilbert • Jared Houghtaling • Jasmine Gratton • Jenna Reps • Jiawei Qian • Jiayi (Jessie) Tong • Jing Li • Joel Swerdel • John Gresh • Katherine Duszynski • Katy Sadowski • Kyle Zollo-Venecek • Kyrylo Simonov • LAISDAR Study Team • Lee Evans • Lydia Liu • Manlik Kwong • Marc Suchard • Marc Twagirumukiza • Marcel de Wilde • Masha Khitrun • Marti Catala • Martijn Schuemie • Martin Lavallee • Marty Alvarez • Meghan Pettine • Mengyuan Shang • Michael Matheny • Michelle Hribar • Milou Brand • Montse Camprubi • Nathan Buesgens • Nathan Hall • Nicole Pratt • Nigel Hughes • Nikolai Grewe • OHDSI Vocabulary Team • Oleg Zhuk • Paul Dougall • Paul Nagy • Polina Talapova • Raivo Kolde • Renske Los • Sally Baxter • Sarah Seager • Stephen Town • Tal El-Hay • Thamir Alshammmary • Thomas Falconer • Timur Vakhitov • Varvara Savitskaya • Vipina Keloth • Xiaoyu Lin

Winners will be announced during the #OHDSI2023 Closing Talk!
MONDAY

Implementation of the ARES application to monitor network-wide data quality and mapping coverage for 16 unique OMOP sources across Rwanda

(Jared Houghtaling, Emma Gesquiere, Lars Halvorsen, Marc Twagirumukiza, and Charles Ruranga)

As we finalize the LAISDAR project, we are set to begin the next chapter of OMOP-based federated networks both in Rwanda and around the African continent; Ares, along with other powerful open-source OHDSI tooling, will be central in those efforts.
Conceptual architecture for the Digital Oncology Network for Europe - an OMOP based European federated, automated cancer care quality ecosystem

(Piers Mahon, Olivier Bouissou, Ismini Chatzitheofilou, Gennaro Ciliberto, Marco Denti, Xosé Fernández, Dennis Kadioglu, Stelios Theophanous, Joëlle Thonnard, Alberto Traverso)
Paving the way to estimate dose in OMOP CDM for Drug Utilisation Studies in DARWIN EU

(Theresa Burkard, Kim Lopez-Güell, Artem Gorbachev, Annika M Jödicke, Nuria Mercadé-Besora, Talita Duarte-Salles, Dani Prieto-Alhambra, Christian Reich, Marti Catala)

This approach shall maximize the completeness and reliability of dose estimations in OMOP CDM through identification of relevant units and patterns among the drug strength table.

Background: Currently, there is no standardized comprehensive method to infer daily dose of drugs from OMOP CDM drug exposure records.

Methods: We created patterns from the drug strength table of OMOP CDM by grouping it by amount, value, amount, unit, numerator, value, numerator, unit, denominator, value, and denominator, unit, to disentangle the units which are crucial for dose estimations. The resulting patterns were independently assessed for relevant units/patterns by two pharmacists (AI, TB) and a medical doctor (AC). In a consensus meeting with CR, relevant units/patterns and unit standardizations were decided. Dose estimation in concentration patterns (i.e. combinations of numerator and denominator units) with missing denominator values may be difficult, therefore, we assessed the frequency of used unique drug concept ids (in combination with quantity) per pattern in the drug exposure table which would give us a priority list for dose formula development. All checks were performed in CRPD GOLD and CRPD AURUM.

Limitation: This work was only carried out in CRPD GOLD and CRPD AURUM and shall be continued in more databases including more countries and settings (claims, hospital data).
Pre-coordination of structural and semantic conventions to capture breast cancer indicators in the context of the European University Hospital Alliance (EUHA)

(Tijs Delabastita, Pieter Maertens, Jared Houghtaling, Pieter Stijnen, Guy Vanden Boer, Johan Van Eldere)
Toward generalizable clinical prediction models: a large-scale investigation using stacking ensembles

(Cynthia Yang, Egill A. Fridgeirsson, Jan A. Kors, Jenna M. Reps, Peter R. Rijnbeek, Jenna Wong, Ross D. Williams)
OHDSI Shoutouts!

Any shoutouts from the community? Please share and help promote and celebrate OHDSI work!

Do you have anything you want to share? Please send to sachson@ohdsi.org so we can highlight during this call and on our social channels. Let’s work together to promote the collaborative work happening in OHDSI!
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
<table>
<thead>
<tr>
<th>Date</th>
<th>Time (ET)</th>
<th>Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>3 pm</td>
<td>OMOP CDM Oncology Outreach/Research Subgroup</td>
</tr>
<tr>
<td>Wednesday</td>
<td>9 am</td>
<td>Patient-Level Prediction</td>
</tr>
<tr>
<td>Wednesday</td>
<td>12 pm</td>
<td>Health Equity</td>
</tr>
<tr>
<td>Wednesday</td>
<td>2 on</td>
<td>Natural Language Processing</td>
</tr>
<tr>
<td>Thursday</td>
<td>8 am</td>
<td>India Chapter</td>
</tr>
<tr>
<td>Thursday</td>
<td>9:30 am</td>
<td>Data Network Quality</td>
</tr>
<tr>
<td>Thursday</td>
<td>7 pm</td>
<td>Dentistry</td>
</tr>
<tr>
<td>Friday</td>
<td>9 am</td>
<td>GIS – Geographic Information System Development</td>
</tr>
<tr>
<td>Friday</td>
<td>9 am</td>
<td>Phenotype Development &amp; Evaluation</td>
</tr>
<tr>
<td>Friday</td>
<td>1 pm</td>
<td>Clinical Trials</td>
</tr>
<tr>
<td>Friday</td>
<td>11 pm</td>
<td>China Chapter</td>
</tr>
<tr>
<td>Monday</td>
<td>9 am</td>
<td>Vaccine Vocabulary</td>
</tr>
<tr>
<td>Monday</td>
<td>10 am</td>
<td>Africa Chapter</td>
</tr>
<tr>
<td>Monday</td>
<td>11 am</td>
<td>Data Bricks User Group</td>
</tr>
<tr>
<td>Monday</td>
<td>6 pm</td>
<td>OMOP &amp; FHIR</td>
</tr>
</tbody>
</table>
The Journey Newsletter (October 2023)

It is officially Symposium Month! The 2023 OHDSI Global Symposium will be held Oct. 20-22 at the Hilton East Brunswick Hotel & Executive Meeting Center in East Brunswick, N.J., and there is still time to register. This newsletter takes a closer look at the symposium weekend, including the three-day collaborative showcase, while reflecting on the growth of the DARWIN EU initiative. We also celebrate the 90+ Titan Award nominees! #JoinTheJourney

OHDSI Videocast: Symposium Showcase, DARWIN EU®, Titans & more

In the latest On The Journey video, Patrick Ryan and Craig Bannan take a deeper look at the expanded Collaborator Showcase for the 2023 OHDSI Global Symposium main conference. They discuss the additional exhibits that showcase work being conducted by members of the community, and how they reflect on the European initiatives that were highlighted during September’s Collaborator Showcase, DARWIN EU®, and the 11th Revision of the OHDSI Guide to Metathesaurus Standards in Pharmacopsychiatry. If videos do not appear, click this link in your browser!

Community Updates

Where Have We Been?

• The Sept. 5 OHDSI Community Call provided a look at the DARWIN EU® Progress and Dashboard. DARWIN EU® is an initiative that works to deliver real-world evidence from across Europe on diseases, populations and the use and performance of medicines. Members of the leadership team provided an update on both its progress and goals.

• ENCOGA editor Catherine O’Hare and seven authors of the 11th Revision of the ENDICIF Guide on Methodological Standards in Pharmacopsychiatry led a discussion on the purpose and audience of the guide, some of the specific houses within this mission, and how it can benefit the research mission of the OHDSI community.

Where Are We Now?

• After months of preparation, the OHDSI Global Symposium is less than three weeks away. The Global Symposium will be held Oct. 20-22 at the Hilton East Brunswick Hotel & Executive Meeting Center in East Brunswick, N.J. The full weekend agenda is now available, and it includes the Friday conference agenda, descriptions on the various weekend activities, and all 137 posters and 24 software demos that will be presented during the collaborative showcase.

• Congratulations to the 90 individual/team members who were nominated for a 2023 Titan Award. Each year, Titan Awards are presented to members of the community who have made valuable contributions to OHDSI’s mission, vision and values. The recipients of the senior Titan Awards will be announced during the closing talk on Friday, Oct. 20 at the Global Symposium.

Where Are We Going?

• We are going to East Brunswick, of course, and we hope to see you there. We are still accepting registrations for the Global Symposium, but don’t wait too long to secure your spot at the highlight event of the OHDSI year! Use this link to register for OHDSI!2023.

• The first two weeks of OHDSI community calls this month (Tuesday, 11 am ET) will feature updates from our various workgroups, and they will help set the foundation for our symposium weekend activities. Community calls are open to everybody, and they are a great way to stay updated on everything happening within the community. The meeting link is available within our Community Calls page.

#OHDSI2023 Month is Here! Check Out The Full Weekend Agenda For The Oct. 20-22 Global Symposium

The agenda for the 2023 Global Symposium main conference is now available and it highlights the most diverse agenda in our event history. It lists the full schedule for all three days, descriptions on the various weekend activities, and all 137 posters and 24 software demos that will be presented during the collaborative showcase.

Register for the 2023 Global Symposium

2023 Global Symposium Weekend Agenda

Collaborator Showcase Peakers

Collaborator Showcase Software Demos

Collaborator Showcases Lightning Talks

mailchi.mp/ohdsi/october2023

www.ohdsi.org

@OHDSI

#JoinTheJourney

October Newsletter Is Available


Welcome to OHDSI!

The Observational Health Data Sciences and Informatics (or OHDSI, pronounced “Odyssey”) program is a multi-stakeholder, interdisciplinary collaborative to bring out the value of health data through large-scale analytics. All our solutions

Join Us At The 2023 Global Symposium

The 2023 OHDSI Symposium will be held from July 20-22 in East Brunswick, NJ, USA, under the theme Collaborate. The Symposium will feature three days of research sharing, collaboration and fun. Registration is now open.

October Newsletter Is Available

mailchi.mp/ohdsi/october2023
Global Symposium

Oct. 20-22 • East Brunswick, NJ, USA
Hilton East Brunswick Hotel & Executive Meeting Center

bit.ly/OHDSI2023Registration
## Global Symposium Conference Agenda

**Agenda • Friday, Oct. 20**

### Time

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 - 8:30 am</td>
<td>Symposium Registration, Lite Breakfast Buffet, All-Day Exhibits</td>
</tr>
<tr>
<td>8:30 - 9:30 am</td>
<td>State of the Community</td>
</tr>
<tr>
<td>9:30 - 10:00 am</td>
<td>OHDSI: Where have we been? Where are we going?</td>
</tr>
<tr>
<td>10:30 - 12:00 pm</td>
<td>Plenary: Improving the reliability and scale of case validation</td>
</tr>
<tr>
<td>12:00 - 1:00 pm</td>
<td>Buffet Lunch</td>
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### Time

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td>Panel: Lessons learned from OHDSI network studies</td>
</tr>
<tr>
<td>2:00 pm - 2:45 pm</td>
<td>Collaborator Showcase, Lightning Talk Session #1</td>
</tr>
<tr>
<td>2:45 - 3:00 pm</td>
<td>Collaborator Showcase, Poster / Demo Session #1</td>
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<tr>
<td>3:00 pm - 4:15 pm</td>
<td>Collaborator Showcase, Lightning Talk Session #2</td>
</tr>
<tr>
<td>4:15 - 5:00 pm</td>
<td>Collaborator Showcase, Poster / Demo Session #2</td>
</tr>
<tr>
<td>5:00 pm - 6:00 pm</td>
<td>Closing session: Scaling community, scaling collaboration</td>
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</tbody>
</table>

### Time

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Grand Ballroom</td>
<td>All events take place at the Grand Ballroom Level - Exhibits will be available throughout the day</td>
</tr>
</tbody>
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**Register**


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**Community Highlights**

- **OMOP CDM users and the OHDSI data network** (Clair Blacketer, Johnson & Johnson)
- **OHDSI standardized vocabularies** (Alexander Davydiv, Odysseyus Data Services)
- **OHDSI’s open-source community** (Katia Sadowski, Boehringer Ingelheim)
- **OHDSI Europe 2024** (Peter Rijnbeek, Erasmus MC)
- **OHDSI Asia-Pacific 2024** (Mengling Feng, National Univ. of Singapore)

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**Moderators**

- **State of the Community**
  - George Hripoasak, Columbia Univ.
- **Plenary**
  - Faizah Arshad, Univ. of California-Los Angeles
  - Cynthia Sung, Duke-NUS Medical School
- **Poster/Plenary**
  - Patrick Ryan, Johnson & Johnson, Columbia Univ.
  - Anna Ostropolska, Odysseyus Data Services
  - Martijn Schuermle, Johnson & Johnson, Univ. of California-Los Angeles
  - Davara Gabriel, Johns Hopkins University

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**Clean Links**

- [www.ohdsi.org](http://www.ohdsi.org)
- [#JoinTheJourney](https://www.ohdsi.org/#JoinTheJourney)
# Global Symposium Conference Agenda

## Agenda • Saturday, Oct. 21

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>7:00 - 8:00 am</td>
<td>Lite Breakfast Buffet, All-Day Exhibits</td>
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<tr>
<td>Grand Ballroom Foyer</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 12:00 pm</td>
<td>Introduction to OHDSI Tutorial</td>
</tr>
<tr>
<td>Various rooms</td>
<td>Common Data Model/Network Data Quality WG Meeting</td>
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<tr>
<td></td>
<td>Health Analytics Data-to-Evidence Suite (HADES) Hackathon</td>
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<td></td>
<td>Health Equity WG Meeting</td>
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<td>Medical Imaging WG Meeting</td>
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<td>Natural Language Processing WG Meeting</td>
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<td></td>
<td>OHDSI Industry WG Kickoff Meeting</td>
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<td>Oncology WG Meeting</td>
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<td>Phenotype Development &amp; Evaluation WG Meeting</td>
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<td></td>
<td>Pregnancy and Reproductive Health Group (PRReG) WG Meeting</td>
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<tr>
<td>12:00 - 1:00 pm</td>
<td>Lunch Buffet, Collaborator Showcase, All-Day Exhibits</td>
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<tr>
<td>Ballroom/foyer</td>
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<tr>
<td>1:00 pm - 5:00 pm</td>
<td>HowOften Large-Scale Characterization Workshop</td>
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<tr>
<td>Grand Ballroom</td>
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<tr>
<td>5:00 pm</td>
<td>Free Time</td>
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## Agenda • Sunday, Oct. 22

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<tr>
<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>7:00 - 8:00 am</td>
<td>Lite Breakfast Buffet, All-Day Exhibits</td>
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<tr>
<td>Grand Ballroom Foyer</td>
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<tr>
<td>8:00 am - 12:00 pm</td>
<td>HowOften Large-Scale Characterization Workshop</td>
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<tr>
<td>Grand Ballroom/Room TBA</td>
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</tr>
<tr>
<td>12:00 - 1:00 pm</td>
<td>Lunch Buffet, Collaborator Showcase, All-Day Exhibits</td>
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<tr>
<td>Ballroom/foyer</td>
<td></td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>Africa Chapter Workshop</td>
</tr>
<tr>
<td>Various Rooms</td>
<td>Eye Care &amp; Vision Research WG Meeting</td>
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<tr>
<td></td>
<td>Health Analytics Data-to-Evidence Suite (HADES) Hackathon</td>
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<td></td>
<td>Healthcare Systems Interest Group (HSIG) WG Meeting</td>
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<td></td>
<td>HL7 FHIR-OMOP Connectathon</td>
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<td></td>
<td>ISPE RWE for Pharmacovigilance</td>
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<td></td>
<td>Medical Devices WG Meeting</td>
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<tr>
<td></td>
<td>Psychiatry WG Meeting</td>
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<td></td>
<td>Vocabulary WG Meeting</td>
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<td></td>
<td>Latin America WG Meeting</td>
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<tr>
<td>5:00 pm</td>
<td>Symposium Closing</td>
</tr>
</tbody>
</table>

Welcome, 1\textsuperscript{st}-Time Attendees!

All OHDSI first-time attendees are welcome to attend an orientation on Friday at 7:45 am within the Woodbridge/Piscataway room. Paul Nagy, a 2022 Titan honoree for community leadership, will lead this session.
Openings at Boehringer Ingelheim

Director, Real World Data & Analytics - Data Domain Owner

Real World Evidence Data Engineer
Opening: Postdoctoral Associate/Data Analyst

Job Announcement: Postdoctoral Associate/Data Analyst - LEGEND Hypertension Project

Position: Postdoctoral Associate/Data Analyst

Organization: Yale University, School of Medicine

Location: 195 Church Street, 5th floor, New Haven, CT, 06510

Application Deadline: Rolling basis

Email: y.lu@yale.edu

Job Description:
We are seeking a talented and dedicated Postdoctoral Associate/Data Analyst to join our dynamic team. In this role, you will play a pivotal part in advancing our mission of improving health outcomes through data-driven research. You will have the opportunity to work with diverse healthcare datasets, develop innovative analytical methods, and collaborate with experts in the field.

The Postdoctoral Associate/Data Analyst should possess significant experience in R and RStudio, with specific expertise in database management using PostgreSQL—critical requirements within the OHDSI network. Your responsibilities will include assisting the Principal Investigator (Dr. Yuan Lu from Yale University) and Co-investigator (Drs. Marc Suchard from UCLA) in creating the analytic tool stack and performing related analyses.

Key Responsibilities:
- Collaborate with multidisciplinary teams to design and execute data analysis projects.
- Develop and implement statistical and machine learning models for healthcare data.
- Perform data extraction and preprocessing tasks to prepare datasets for analysis.
- Conduct exploratory data analysis and visualization to extract insights from healthcare data.
- Assist in the development and maintenance of OHDSI’s open-source tools and resources.
- Communicate findings and insights through reports, presentations, and publications.
- Stay up-to-date with the latest advancements in data science and healthcare informatics.
Where Are We Going?

Any other announcements of upcoming work, events, deadlines, etc?
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
OHDSI's Open Source Working Group

Adam Black, Paul Nagy
What is the Open Source Working Group

• The OHDSI Open Source Community exists to promote the health and sustainability of the OHDSI open source software ecosystem. This entails building open-source governance and engaging new contributors.

• 271 Members of Teams Working Group

<table>
<thead>
<tr>
<th></th>
<th>Last 12 years</th>
<th>Last 12 months</th>
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</thead>
<tbody>
<tr>
<td>Repositories</td>
<td>262</td>
<td>134</td>
</tr>
<tr>
<td>Contributors</td>
<td>681</td>
<td>210</td>
</tr>
<tr>
<td>Commits</td>
<td>47,672</td>
<td>6,160</td>
</tr>
<tr>
<td>Organizations Contributing</td>
<td>31</td>
<td>20</td>
</tr>
</tbody>
</table>
Open Source Working Group

• OKR 1: Improve process to engage and train casual contributors to become active contributors/maintainers
  • Expand leadership team. Katy Sadowski, Clark Evans, Nate Buesgens, Dan Smith, Anthony Sena.
  • 2023 Kheiron Cohort. 20 new contributors with 1:1 mentors.
  • 2023 OHDSI DevCon
OKR 2: Formation of a Technical Advisory Board (TAB).

The mission of the OHDSI Technical Advisory Board is to ensure the stability, security, supportability, and sustainability of OHDSI open source projects.

2023 Achievements:
• 14 representatives from across the OHDSI ecosystem joined the TAB and drafted a charter
• Kicked off work to:
  – Align on and implement standards for database platform support (including shared testing infrastructure)
  – Develop technical and process solutions for coordinated, stable, and secure OHDSI software releases
Join the Journey!

Health Analytics Data-to-Evidence Suite (HADES) Hackathon

- Saturday 8:00am-12:00pm and Sunday 1:00pm-5:00pm
- Participants will work on the HADES codebase with support from several HADES maintainers. Participants can work in groups, and we welcome both new and experienced contributors to join
- Target audience: Developers interested in working on the HADES codebase. Some experience in R is recommended
OHDSI Medical Imaging Working Group

From pixels to Phenotypes
Enabling observational research with medical imaging data

WG co-leads Seng Chan You and Paul Nagy
Wednesdays every 2 weeks at 7 AM / 7 PM
Imaging WG Goals

1. Extension to perform cohort definitions in OHDSI for medical imaging research studies.

2. Extension to bring features derived from medical images into the OMOP data model while maintaining provenance.

3. Create reference implementations of infrastructure for reproducible research on medical images.
OKR #1

• Objective: Have CDM group approve the model into the base OMOP model Q3

• Key Results:
  • Publish a draft data model for the imaging extension (Aug 2023)
  • Have Radlex and DICOM vocabularies added to the OMOP vocabulary Q2
Imaging Extension to OMOP

Person

Visit

Procedure_Occurrence

Clinical Domain Tables
_type_concept_id= "Machine Learning"

Image_Occurrence

Image_Feature

Vendor Neutral Archive

DICOM Archive

Deep Learning Models
(Model, Parameters)

DICOM WADO RS
(Web Access to DICOM Objects)

API Model Serving
OKR #2

- Objective: Conduct a network study based on the imaging extension

*Seed gift from Gates Ventures in support of Alzheimer’s research

**MONAI Model Zoo**
Wholebrainseg large unest segmentation

March 2024 – 1st imaging data characterization network study
July 2024 – 1st Federated acyclic learning model
OHDSI Vaccine Vocabulary Workgroup 2023

Co-chairs: Yongqun “Oliver” He (UMich), Asiyah Yu Lin (NIH/Axle)

More members: Umich: Yuanyi Pan; UTHealth: Warren Manuel, Rashmie Abeyesinghe, Xubing Hao, Licong Cui; Odysseus: Alexander Davydov; IQVIA: Qi Yang

**Overall Goal:** Harmonize OMOP vaccine vocabularies (e.g., CVX, Rx-Norm, Rx-Norm extension, CPT4, and HCPCS) using the **Vaccine Ontology (VO).**

**Workgroup Objective and Key Results (OKR) for 2023:**

- **Objective 1:** Build up a **consensus model** of vaccines for OHDSI needs.
  - **Key result:** Basically done.

- **Objective 2:** **Map** different vaccine representations using the consensus model.
  - **Key results:** (i) Mapped all **CVX** vaccine terms manually and automatically;
    (ii) Developed an **ML method** for automatic mapping.
    (iii) Working and testing on **RxNorm** now.

- **Objective 3:** **Incorporate and evaluate** the VO mapping results to OMOP vocabulary.
  - **Key result:** To do.
• To present in OHDSI Symposium 2023

Title: Harmonization of OMOP vaccine-related vocabularies through the Vaccine Ontology

Authors: Yuanyi “Penny” Pan*, Warren Manuel*, Rashmie Abeysinghe*, Xubing Hao, Alexander Davydov, Qi Yang, Asiyah Yu Lin#, Licong Cui#, Yongqun Oliver He#

A glimpse of our poster:

(Note: Penny will present, and Oliver will attend.)
OHDSI Standardized Vocabularies WG
Workgroup Purpose

• To **coordinate** the activities of the Vocabulary Team and the OHDSI community to a) provide **well curated** ontologies in the OHDSI Standardized Vocabularies and b) support transparent **pipelines for contributing local content**.

• To **research and develop** approaches and tools to improve quality, transparency and robustness of the OHDSI Vocabularies.

• To **connect Workgroups and individuals** to enable collaboration around shared ontology **needs** as well as around **tools and methods** for Vocabularies management/use in research and ETL.
1. Run review sessions for pending changes in vocabularies and their build process
Covered: August 23 release, LOINC-SNOMED hierarchy, MedDRA Overhaul, tracking vocabulary changes
Upcoming: mapping knowledge base, Vocabulary QA/QC and release notes

2. Provide guidance and instructions for community members' contributions
Published and advertised instructions for community contribution (community calls – global and APAC, Vocab WG calls, forums and email distribution)
Soliciting community contribution through stewardship (4 individual and group stewards so far)
Collaborating with the community on more robust pipelines

3. Implement a standard approach for collecting and storing meta-data
SSSOM-compatible meta-data being collected for community contribution
Same standards proposed for Usagi
Implementing the pipeline for MedDRA
2023 OKRs

• Regular HADES-wide releases
  • Every 6 months

• More user involvement
  • (not much progress here)

• Have roadmaps, design specifications
  • (not much progress here)

• Improved stability
  • We now have testing servers for all supported database platforms (had to deprecate some platforms for lack of testing server)

Also: Continued Strategus development
Methods Research

2023 goals:

• Create awareness of who is researching what methods in OHDSI / using OMOP
• A sounding board for methods research in progress
• Identify new methods research questions
• Find collaborators
Methods research

2023 methods research highlights:

• Large-scale survival model computations (GPUs)
• Bayesian models adjusting for multiple looks and systematic error (negative controls)
• Likelihood approximations for 1-shot evidence synthesis
• Performance of confounding adjustment when sample size is small
• A better balance metric
2023 updates: OHDSI Medical Device WG

Asiyah Lin
10/9/2023
Objective 1: Expand the leadership team and establish collaborations across OHDSI and beyond

Key results:

1. Increased meeting frequency: every 3 weeks on Thursdays alternatively 9AM or 12PM Eastern Time.
2. Welcome Michael Matheny to join the leadership team!
3. 1Q2023: Responded to FDA medical device active surveillance RFI by Mar. 30, 2023. - OHDSI WG as a whole.
4. 2-3Q2023: Group members (separately) responded to the NEST/FDA medical device active surveillance RFP:
   - Asiyah Lin led Axle Informatics team;
   - Michael Matheny led VA and Vanderbilt team...
   - Both collaborate with OHDSI.
The first WG OHDSI Symposium Activity!

Sunday, Oct. 22nd, 2023. 1PM – 5PM EDT. @ Campbell room

1. Prototype Device table for CDM
   - Starting point: current device exposure table in the OMOP v5.4,
     and the FHIR DeviceDefinition resource as a starting point.

2. Brainstorming for the year 2024 activities.
Industry WG Symposium Meeting

Meeting Agenda:

• Introductions
• Industry Working Group Objectives
• Roundtable on canvassing those interests
• Formalise structure of the working group moving forwards

Who should attend?

This is an open meeting with a focus on those members of the OHDSI community who have ties and affiliations with the Pharma and Biotech industries and would like to work together to represent those interests more broadly within OHDSI.

Looking for leaders!
Healthcare System Interest Group update
Fall 2023

HSIG meeting at the Symposium
• Not too late to sign up
• Sunday, Oct. 21\textsuperscript{st} 1pm - 5pm
• Guest speakers include Paul Nagy & Kristin Kostka
• Perfect for those thinking about joining the journey, have started their journey, or want more from their journey
• All are welcome!
Themis working group update
Fall 2023

OKRs have been met for the year!

1. To re-establish the Themis WG; 1st & 3rd Thursday of the month @ 9:30am Eastern Time

2. Publish guidelines for the creation, nomination and adjudication process for Themis convention approval; check the Themis GitHub

3. Complete some Themis work; Ratified: Guidance for Drug Exposure days_supply field and ETL guidance for Cohort table
Africa Chapter 2023 Objectives and Key Results

Objective 1: Grow the Africa Chapter to >25 members
  • Key Result: 117 members, 13+ African countries, 14+ ex-Africa countries

Objective 2: Prepare promotional video and value propositions
  • Key Results
  ✓ Two value proposition documents: one for researchers (3 pp), another for Ministries and Data custodians (2 pp)
  ✓ Informational poster for hanging at meetings – one pptx
  ✓ 4-min video for OHDSI Workgroup page
African Chapter 2023 Objectives and Key Results

Objective 3: Develop a pipeline from one or more regional sources into OMOP including data quality assessment

Key Results
- Rwanda – LAISDAR 15 hospital network coordinated by Rwanda Biomed Center (RBC) and Ghent University
- Kenya, Malawi – INSPIRE coordinated by African Population Health Research Center (APHRC)
- Other sites interested but need funding

Objective 4: Identify and pursue funding to support Chapter Activities

Key Results
- Wellcome Trust ➔ APRHC “Data Science without Borders” Kenya, Cameroon, Senegal, Ethiopia, UK, France Data harmonization to OMOP CDM, Machine Learning etc.
- Others have submitted to open grant calls, pending review or being prepared for government initiatives or philanthropic organizations
Africa Chapter 2023 Objectives and Key Results

Objective 5: Present Africa Chapter at related conferences focused on Africa

- Key Results
  - 2 presentations at DS-I Africa Virtual Network Exchanges coordinated by Univ. Cape Town
  - Successful meeting with Africa Chapter members & USAID, CDC and Africa CDC
  - Upcoming Africa conferences – members offering to display OHDSI Africa Chapter poster
  - OHDSI Global Symposium Africa Chapter Workgroup Activity - Sun Oct 22, 1-5 PM
    - Converting maternal hospital admission survey Questions & Answers to OMOP CDM tables, domains, classes, and standard vocabulary concept ids
    - Maternal and neonatal health, mapping questionnaires, unique vocabulary
    - Teams link for remote participation posted in the Africa Chapter Teams Channel
Africa Chapter Future Objectives

• Build a data source catalog
• Assess vocabulary needs for use cases in the region
• Hold an-in person workshop/conference in Africa (2025)
GIS – Geographic Information Systems
Objectives and Key Results (OKR)
Kyle Zollo-Venecek
Oncology
Objectives and Key Results (OKR)

Asieh Golozar
Surgery & Perioperative Medicine
Objectives and Key Results (OKR)

Evan Minty
Psychiatry Objectives and Key Results (OKR)

Dmitry Dymshyts
Objective 1: Harden Phenotype Development and Evaluation framework
- Enable the community to complete 10 phenotypes via the current phenotype development and evaluation process using activities like Phenotype Phebruary (Timeline: 1Q 2023)
- Through scientific debate address at least 4 topics of community interest and drive community consensus (Timeline: 2Q 2023)
- Clarify terminology and scientific definitions and deliver a document that organizes such ideas (Timeline: 2Q 2023)
- Integrate probabilistic phenotyping into the OHDSI PL (Timeline: 3Q 2023)
- Write two scientific papers on phenotyping development and evaluation (Timeline: 4Q 2023)

Objective 2: Improve collaboration by enabling community wide participation on Phenotype Development and Evaluation
- In Phenotype Phebrurary have 10 Phenotypes completed and published in OHDSI Phenotype library as peer reviewed Cohort Definitions (Timeline: 1Q 2023)
- Promote clinically trained scientists by having at least 5 new clinician collaborators actively engage in Phenotype Phebruary (Timeline: 1Q 2023)

Objective 3: Promote the usage of OHDSI Phenotype library
- Complete peer review for 10 (phenotype phebruary) + 10 (additional) phenotypes added to the OHDSI Phenotype Library. (Timeline: 4Q 2023)
- Formalize submission process and perform at least 2 communication sessions on OHDSI Phenotype Library. (Timeline: 2Q 2023)
- Execute at least two OHDSI Studies that uses the Cohort Definitions in the OHDSI Phenotype library to generate characterization evidence (Timeline: 3Q 2023)
- Write a paper on OHDSI Phenotype Library (Timeline: 4Q 2023)